1	What is claimed is:
2	1. A visual image display, comprising:
3	a fiber-optic faceplate comprising:
4	an upper face;
5	a lower face; and
6	a multiplicity of straight optical fibers positioned between the upper face and the lower
7	face of the faceplate;
8	wherein longitudinal axes of the optical fibers are parallel to each other and substantially
<b>5</b> 9	perpendicular to the upper face and the lower face of the faceplate; and
10 11 11 112	wherein each of the fibers collects and projects through the faceplate a plurality of light
11	rays emitted by an ambient light source; and
<b>u</b> 12	a layer of suspended particle device (SPD) positioned underneath the lower face of the
消削り	faceplate, wherein the layer of SPD comprises:
_14	particles suspended in droplets of a liquid light valve suspension, wherein the particles
15 16	are capable of absorbing or reflecting the plurality of light rays; and
<u>=</u> 16	a pair of electrodes positioned in contact with opposite surfaces of the layer of SPD,
17	wherein orientations of the particles depend on an application of an electric field to the
18	electrodes.
19	2. The visual image display of claim 1, further comprising a transparent conductive layer coated
20	underneath the lower face of the faceplate and on top of the layer of SPD.
21	3. The visual image display of claim 1, further comprising perimeter seals at both ends of the layer
22	of SPD.
23	4. The visual image display of claim 1, wherein the particles align in the direction of the electric
24	field when the electric field is applied, whereby the layer of the SPD becomes substantially transparent
25	to the plurality of light rays.
26	5. The visual image display of claim 1, wherein particles randomize when the electric field is

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-6.

removed, whereby the layer of the SPD becomes substantially opaque.

The visual image display of claim 1, further comprising color filters positioned on a rear

- substrate to produce a color display, wherein the rear substrate is positioned underneath the layer of 1
- 2 the SPD.
- 3 7. The visual image display of claim 1, wherein the fiber-optic faceplate is formed to a thickness
- 4 within the range of approximately 0.25 to 5.0 millimeters.
- 5 8. The visual image display of claim 1, wherein the layer of SPD comprises a layer of SPD fluid.
- The visual image display of claim 1, wherein the layer of SPD comprises a layer of SPD film. 9. 6
- 7 10. The visual image display of claim 9, further comprising a thin layer of index matching fluid
- 8 positioned on top of the layer of SPD film.
- 10 10 11 A visual image display, comprising: 11.
  - a fiber-optical faceplate through which light can pass;
  - a layer of suspended particle device (SPD) positioned underneath the faceplate, wherein the
- U12 U13 layer of SPD comprises:
  - particles suspended in droplets of a liquid light valve suspension, wherein the particles
- 14 15 16 are capable of absorbing or reflecting the plurality of light rays; and
  - a pair of electrodes positioned in contact with opposite surfaces of the layer of SPD;
  - wherein orientations of the particles depend on an application of an electric field to the
- <del>-</del>17 electrodes; and
  - a transparent conductive layer coated underneath the faceplate and on top of the layer of SPD. 18
  - 19 12. The visual image display of claim 11, further comprising perimeter seals at both ends of the
  - 20 layer of SPD.
  - 21 13. The visual image display of claim 11, wherein the particles align in the direction of the electric
  - 22 field when the electric field is applied, whereby the layer of the SPD becomes substantially transparent
  - 23 to the plurality of light rays.
  - 24 14. The visual image display of claim 11, wherein particles randomize when the electric field is
  - 25 removed, whereby the layer of the SPD becomes substantially opaque.
  - 26 15. The visual image display of claim 11, further comprising color filters positioned on a rear
  - 27 substrate to produce a color display, wherein the rear substrate is positioned underneath the layer of
  - 28 the SPD.

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I	16. The visual image display of claim 11, wherein the layer of 3rD comprises a layer of 3rD nu
2	17. The visual image display of claim 11, wherein the layer of SPD comprises a layer of SPD fil
3	18. The visual image display of claim 17, further comprising a thin layer of index matching flu
4	positioned on top of the layer of SPD film.
5	19. A visual image display, comprising:
6	a fiber-optic faceplate comprising:
7.	an upper face;
8	a lower face; and
<b>5</b> 9	a multiplicity of straight optical fibers positioned between the upper face and the lov
<u>n</u> 10	face of the faceplate;
10 11 11 12 13	wherein longitudinal axes of the optical fibers are parallel to each other and substantia
12	perpendicular to the upper face and the lower face of the faceplate; and
斯 13	wherein each of the fibers collects and projects through the faceplate a plurality of li
14 15 16	rays emitted by an ambient light source;
15	a layer of suspended particle device (SPD) positioned underneath the lower face of
<u>=</u> 16	faceplate, wherein the layer of SPD comprises:
<del>-</del> 17	particles suspended in droplets of a liquid light valve suspension, wherein the partic
18	are capable of absorbing or reflecting the plurality of light rays;
19	perimeter seals at both end of the layer of SPD; and
20	a pair of electrodes in contact with opposite surfaces of the layer of SPD;
21	wherein orientations of the particles depend on an application of an electric field to
22	electrodes; and
23	wherein the layer of the SPD becomes substantially transparent to the plurality of light
24	rays when the electric field is applied, and substantially opaque when the electric field
25	removed; and
26	a transparent conductive layer coated underneath the lower face of the faceplate and on
27	of the layer of SPD.
28	20. The visual image display of claim 19, further comprising color filters positioned on a r

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- 1 substrate to produce a color display, wherein the rear substrate is positioned underneath the layer of
- 2 the SPD.

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